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PENDING CLAIMS

40. The method of claim 38 wherein said pair of single-stranded targeting polynucleotides, and a recombinase are introduced into said cell by biolistics.

- 41. A method of altering a nucleic acid sequence of a mitochondria of a cell comprising: introducing into a cell a pair of single-stranded targeting polynucleotides, and a recombinase, wherein said targeting polynucleotides of said pair are substantially complementary to each other, and each comprise a homology clamp that substantially corresponds to or is substantially complementary to a predetermined nucleic acid sequence of said mitochondria, whereby said sequence is altered.
- 42. The method of claim 41 wherein said cell is a plant cell.
- 43. The method of claim 41 wherein said pair of single-stranded targeting
- 44. The method of claim 41 wherein said recombinase comprises RecA.
- 45. The method of claim 41 wherein said recombinase comprises Rad51.